

CUSTOMER NO.: 24498
Serial No.: 10/530,881
Final Office Action dated: 12/10/07
Response dated: 03/07/08

PATENT
PD020100

Remarks/Arguments

Claims 16, 17, 19-23, and 25-29 are pending in the application

Claims 16, 17, 19-23, and 25-29 stand rejected.

The independent claims 16, 22, 28 and 29 have been amended herein to more clearly and distinctly claim the subject matter that applicants regard as their invention. No new matter is believed to be added by the present amendment.

Rejection of claims 16, 17, 19-23, and 25-29 under 35 USC 112, first paragraph, as failing to comply with the written description requirement.

In the Office Action the feature of "to a second field a value is assigned which specifies the decorrelation strength of the specified decorrelation to be applied to a said non-point sound source" in the independent claims 16, 22, 28 and 29 is objected to.

Without conceding any statements or waiving any arguments applicants have removed this objected to feature from the independent claims. It is respectfully requested this rejection be withdrawn.

Rejection of claims 16, 17, 19-23, and 25-29 under 35 USC 112, second paragraph, as being indefinite.

Applicants have amended the independent claims to clarify certain features. In view of the clarifications it is respectfully submitted that the claims include proper antecedence and this indefinite rejection should be withdrawn.

Rejection of claims 16, 17, 19-23, and 25-29 under 35 USC 102(b) as allegedly being anticipated by Potard et al. (hereinafter Potard) "Using XML Schemas to Create and Encode Interactive 3-D Audio Scenes for Multimedia and Virtual Reality Applications"

Applicants submit that for at least the reasons discussed below claims 16-17, 19-23, and 25-29 are not anticipated by Potard because the reference fails to teach or suggest each and every claimed feature.

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In the "Response to Arguments" section of the final Office Action (paragraph 7) it is argued that Potard discloses "how to use different fields to define each sound source." It is further argued that table 1 of Potard lists several common fields.

However, applicants point out that the sole purpose of the parameters in Potard is to define the objects as correctly as possible. But, Potard does not at all suggest to assign one of several decorrelations. The same is true for the macro-objects as described in 2.3.1 of Potard.

In fact, Potard tries to describe elementary objects as realistically as possible by defining characteristics of the sound source, a virtual surface of the virtual acoustic space where the sound source is located in, the medium through which the sound propagates, the position and orientation of the listener and finally the acoustic properties of the room. But there is no suggestion to assign one of several decorrelations.

In Potard's example of a macro-object describing a choir which is, in turn, composed of several lower-level singer macro-objects, the singer object is described by a sound source with particular directivity and a reflecting/absorbing surface representing the singers body. The schematic representation in Figure 1 of Potard depicting this example does not show any differences in the macro-objects for the different singer objects.

Thus, it is respectfully submitted that Potard does not disclose using different values for the directivity or the reflecting/absorbing surface. There is no suggestion in Potard that the parameters can assign one of several decorrelations.

Furthermore, Potard does not even suggest the need to apply a decorrelation where the same audio signal is used for more than one non-point sound source. As pointed out above, Potard in section 2.3.1 only discloses macro-objects, which relate to the repetition of an object after some transformation. For example, a group of choristers is created from the same singer-object by repeating it several times after a pitch transformation is applied.

In contrast, applicants' claimed invention explicitly specifies, for example in claim 16 assigning to a field a value which specifies one of several decorrelations, "whereby in case of the usage of the same signal for two or more non-point sound sources, for each of said non-point sound sources, a different value is assigned to

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apply different decorrelations." Thus, the claimed invention as recited in claim 16 provides information to apply different decorrelations. This provides, for example, flexibility at the receiving end allowing the player manufacturer to specify which specific decorrelation functions are applied as long as they result in decorrelated signals.

For at least the foregoing reasons, it is respectfully submitted that claim 16 includes features not found or suggested in Potard. Therefore, the rejection of claim 16 should be withdrawn.

Claims 17 and 19-21 depend from claim 16 and include the above discussed distinguishing features. In addition, each dependent claim includes further distinguishing features not found or suggested in Potard.

Independent claims 22, 27 and 28, while different from claim 16, include similar distinguishing features as discussed above with regard to claim 16. Accordingly, without conceding any statements or waiving any arguments concerning claims 22, 27 and 28, each of these independent claims are allowable for at least the reasons discussed above and the rejections should be withdrawn.

Claims 23 and 25-26 depend from claim 22 and include at least the distinguishing features recited in claim 22. As discussed above, with regard to claim 16, these features are not found or suggested in Potard. In addition, each dependent claim includes further distinguishing features not found in Potard.

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Conclusion

Having fully addressed the Examiner's rejections it is believed that, in view of the preceding and remarks, this application stands in condition for allowance. Accordingly, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicants' attorney at (609) 734-6813, so that a mutually convenient date and time for a telephonic interview may be scheduled.

It is believed that there is no charge associated with the filing of this Amendment; however, if there is a fee due, please charge the fee, and credit any overpayment, to Deposit Account No. 07-0832.

Respectfully submitted,

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